

NOTE-BOOK

Bird

Society

1948

Nice, M.M. 1933. The theory of territorialism and its development.

Fifty Years' Progress of American Ornithology 1883

-1933,, pp. 89-100.

published by the American Ornithologists' Union,

- 年中 territory, 7 マエル 鳥 マエル (p. 93)

The typical territory holding birds are some of the hawks that make themselves conspicuous by special flight, shrikes, and kingfishers that perhaps do the same partly by their bold markings as well as loud cries, and the majority of passerines that advertise themselves by song.

With some of these birds the males remain in and defend their territories throughout the year - notably the English Robin (*Erithacus rubecula*) and the California Shrike (*Lanius ludovicianus gambeli*) (Miller, '31). In both of these species there seems to be an ingrained preference for solitude. Many territory holders remain only during the breeding season, but in some cases the males stay in the vicinity until migration; this is true of my summer resident Song Sparrows and of warblers in Maine (F. A. Saunders '26).

Dohle カラジ - 飛

Nachtreiher

Seidenreiher

Meisen カサカサ

Stieglitz アヒ

Störche

Stockenten

Branten

Grangänse カサガシ - 飛

Wespenbussard

Goldfasanen

Mantelmöwe

Schwabbe 1718X

Storch 271712

Kendeigh, S. C. 1934 The rôle of environment in the life of birds. Ecol. Monog. 4: 300 - 419.

74 eastern house wren, *Troglodytes aedon aedon*.

75 western house wren, *T. a. parkmani* n. sp.

p. 309. It is of particular interest, however, that the number of broods per female per season tends to vary inversely with the total population. When the total population is reduced in size, the average of broods per female is greater than when the population is large.

p. 345. Other species which ordinarily migrate south in the fall may remain in their northern habitat through at least a part of the winter if they have access to an abundant and ready source of food.

p. 353. In considering the limiting influence of average night temperature and hours of darkness on the northward distribution of the species, it appears, first, that the species decreases in abundance before it finally disappears altogether.

p. 359 ... that lighter birds live longer at a high air temperature than do heavier birds, except where the air temperature is extremely high. The lighter birds, on the contrary, have less resistance to low air temperature than do the heavier birds. (Baird-Allen-Rensch, law)

Spring migration + = = sub

p. 363. From May until October, the mean maximum temperature in the wintering area becomes excessively high.

An interesting point involved here in both the spring and autumn migrations of birds, is the effect of the birds' weight upon the time at which it migrates.

----- heavier birds have a greater resistance to low air temperature than have lighter birds, while the lighter birds tolerate high air temperature for a longer time than do the heavier birds. Arguing from this, the heavier individuals of a species should arrive earlier in the spring than do the individuals of less weight; while in the autumn, the heavier individuals should be the last to go.

p. 364. The eastern house wren decreases in abundance around the periphery of its breeding area before it finally disappears. The reason for this decrease lies in the approach of one or more factors towards the limits of tolerance.

pp. 391-392.

Rowan (1929, 1931) attempts to correlate length of day, development of gonads, and bird migration. ---

Rowan thus believed that the stimulus for these migrations was furnished by hormone secretion from the gonads in spring and fall. One wonders, however, if this interstitial tissue may not also be present in the gonads of permanent resident species which do not migrate but whose gonads likewise undergo remarkable seasonal changes in size.

gonad theory "???" decisive proof \neq 得 \neq \neq \neq . \neq \neq \neq \neq
southward migration = 127 \neq \neq , castrate \neq \neq \neq normal \neq \neq \neq
migrate \neq 10 \neq \neq \neq \neq \neq \neq .

p. 372. 夜が長ク、マモウ+レハ、^{ソノ}1回=矢+ワヲモ17 翌日トリカエサナフテハナ
^{ソコデ}イサ、日が短クテ、ソレが出来又ヨリテハ、ソレガデ、ソノ鳥_人生活デキ又コ
コトナル。

p. 381. By migrating north in the spring and south in the autumn, the house wren takes advantages of the longest daylight periods in each region and avoids the unfavorable shorter periods.

p. 394

The close similarity in the distribution of the eastern house wren during the breeding season and the Acer-Fagus Association is of considerable interest ----. Just what the factors involved in such a correlation may be, cannot now be stated. The evidence available indicates that any influence exerted by the vegetation must be an indirect one, possibly through some change in the quantity or quality of the food supply.

p. 395 Resistance to low external temperature is greater in the winter than in the summer.

p. " Limits of tolerance have been discovered for low temperature that involves average night temperature and number of hours of darkness, for ----.

p. 396. There is very probably a zone of physiological discomfort before the actual limits of tolerance are reached. Birds respond more to these zones of discomfort than to the actual limits of tolerance, and adjust their behavior accordingly. The zone of discomfort would serve as a warning of the approach of dangerous conditions.

conclusions

low temperature : average temperature at night
: number of hours of darkness

high temperature : mean daily maximum temperature

2nd factor : too low and too high intensity of solar radiation

: lack of available food,

: too intense biotic competition

: lack of nesting territory and sites

: unfavorable physiographic features.

northern limit : low night temperature

southern limit : high daily maximum temperature

: competition with the Bewick wren,

Thryomanes b. bewicki,

southern migration

: low night temperature, long daily periods of darkness, short daylight periods, low intensity of solar radiation, snow, and lack of available food.

migration

: maintaining itself in a more nearly uniform and favorable environment throughout the year.

initiating factor

: change in the metabolic or physiological state of body.

inherited nerve or behavior patterns, aided by social inheritance.

general conclusion

: the climate is a factor of major importance in controlling the distribution, migration, abundance and behavior responses of its small passerine birds.

Lebensraum 生活圈, 生物地理学 - 得 - 範圍, 在イ意味, Technical term + イ 地理的 + 言葉 + 云々
Biosphäre, 生物圈, von Lithosphäre, Atmosphäre, Hydrosphäre = 大別出来ル.
地理的:

Biotop, biotic area 特殊 + 生活圈, 環境条件 = 特徴的. 云々 adapt 的 特殊, 生物ヲ 考慮ル,
area が 大 + 小 + 多 + 少 + 云々, 林等デ 云々 Standort 立地 + 林等ニ, tech. term +
又 7 が 出来ル故, 本邦デハ 同義 = 解釈 出来 + イ, forest, steppe, tundra, etc.
イ 意味ハ 常識的, 概念的デアル, 一般的 = 相当 area = 云々. 景観的特徴ヲ 具ヘ 云々 指ス.

* Habitat (Wohnort) 一ツ sp. 又 一ツ community / 示ス 特殊 + 分布地域, 授言セハ 一ツ
特殊 + 生活圈 Biotop ヲ 指ス. ecological + tech. term (本邦付ス) デ 分類 出来ル
居地 + 言葉 = 一ツ 多テハ 云々. 意味ハ 4 が 7, 大 + 小 + 多 + 少 + 云々 言葉 全部 special
+ 意味 が 付 随 + 云々.
又 一ツ community + 云々 7 = 3 ヲ 1
経路 毎 1 限 + 云々 内容ヲ 示ス = 云々
昆虫中 = imago + larva + habitat ヲ 示ス = 2 ヲ 1 が 多イ.
又 hunting ground + nesting ground ヲ 示ス = 2 ヲ 1 が 多イ. 本邦 = 一ツ 両方 = 一ツ sp.
habitat デアル

Biocönose, biotic community, Biotop = 対スル 言葉, Biotop, 内容, 中 = 全部
生態的 + 有成的 (動的, 立体的) + 意味 = 云々 把握シ 言葉, 動物 + 植物 + 云々 2 が 合ハ
animal community + 云々, community + 言葉 デアル + 云々 限リ. 云々 Biotop 合ハ
示 = 概念的デ, tech. term + 云々 認識 + 難イ

Lebensgemeinschaft, 一ツ 概念 = biotic community ヲ 指ス, Biotop + 関係 + 云々. 一ツ 概念 + 言葉
Biocönose, 内容 + 云々 Gesamtbevölkerung + 指ス

Lebensverein, Lebensgemeinschaft 3 ヲ 1 ヲ 自由 + 使用. 一ツ 一般的 = biotic community ヲ 指ス
一ツ Lebensgemeinschaft 中 = 多ク, Lebensverein + 認識 + 7 が 出来ル, 云々 云々 + 云々 2 が 合ハ

Faunule, 一ツ 言葉 + 云々. 云々 Niche, 内容 + 云々
Tierstaat, social life + 云々 ant, bee + 云々, 一ツ colony + 云々, 一ツ gregarious + 云々 habit + 云々 集合 + 云々

Tiergesellschaften, animal community + 云々 意味, 又 野牛, 一ツ herd + 云々 集合 + 云々

Fauna, 一ツ 限 内 = 云々 species, 全部ヲ 指ス 云々. 又 Lepidopterenfauna + 云々 7 が 云々
Biota, fauna & flora, 综合.

Wohndicht Vegetation = 相当 云々 7 が 云々, Wohndicht + 云々
Lebensdicht (Razel) Vegetation + Wohndicht der Tiere + 云々 7 が 云々
Bevölkerungsdicht, Wohndicht 一ツ 限 内, 一ツ 動物, population, 2 ヲ 合ハ 一ツ sp. Wohndicht + 云々

Region
Leitform, Präferente, Zurücktretende, Irrgäste, predominant
生活圈 (Lebensbezirk): 生物地理学

環境区 Habitat 生物分布帯 Life Zone
環境指標植物 (Habitat) indicator 分布地域 (動物地理区) zoo-geographical region

溪流 Torrent = Bach = mountain river 環境小区 niche
河 = Fluss = plain river 分布地域 distributional range (or area)

stream = 一ツ
river = 一ツ
creek 群落 community 相 fauna
共存 associate

territory 个体密度 abundance population 出現頻度 frequency (of occurrence)

又 Wada 一ツ Biotop + 云々, 一ツ Teilung + 云々 Biotop + 云々, 一ツ Lebensgemeinschaft + 云々

C. W. Thornthwaite: The Climate of the earth.

Geogr. Rev. 1933, 433-490 with one colored map

Characteristics of classification

1. Temperature

best condition - tropical rain forest.

Precipitation effectiveness, $\pi = 21$

tropical rain forest \rightarrow tropical desert

- A rain forest
- B forest
- C grassland
- D steppe
- E desert

2. Temperature efficiency, $\pi = 21$

tropical rain forest \rightarrow perpetual frost

- A' tropical rain forest
- B' temperate " "
- C' microthermal " "
- D' taiga
- E' tundra
- F' perpetual frost (no vegetation)

Index	Humidity Type	Characteristic Vegetation	PE index
A	Wet		128-128
B	Humid		64-127
C	subhumid	Eric	32-63
D	semiarid		16-31
E	arid		0-15

Temp.		
A'	Tropical	128-128
B'	Mesothermal	64-127
C'	Microthermal	32-63
D'	Taiga	16-31
E'	Tundra	1-15
F'	Perpetual frost	0

128 = 128, indices, 128 = 24, 30, climatic region 7.2

3. $\Sigma = \Sigma$ = seasonal distribution of effective precipitation \rightarrow type

r	-	rainfall abundant at all seasons
s	-	" scanty in summer (abundant in winter)
w	-	" " " winter (" in summer)
d	-	" " " at all seasons

w' $\Sigma =$ drought $\Sigma =$ rainy season

120, possible different possible combination of Σ

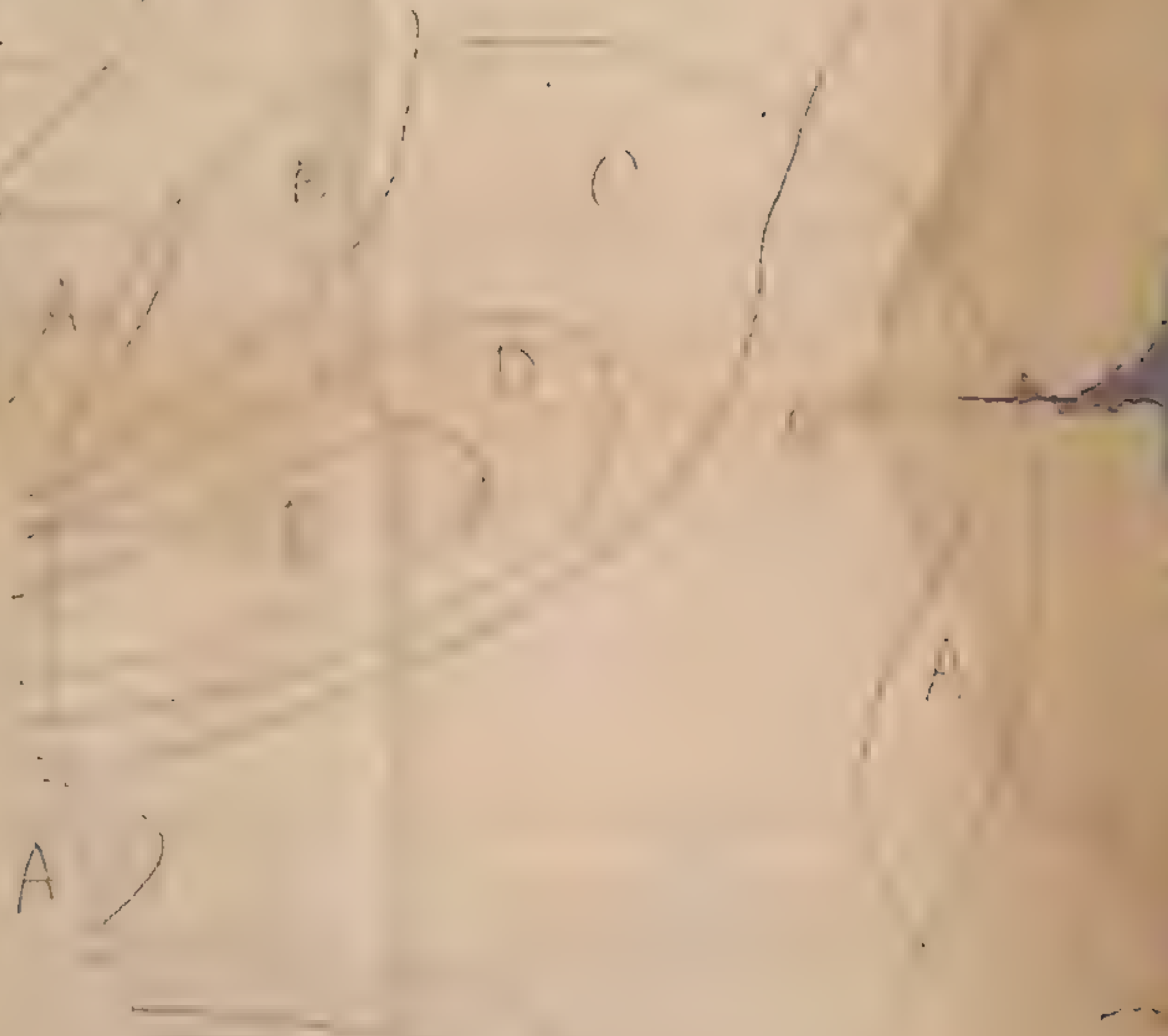
$\Sigma = 120$ = meteorologically impossible + 21 = 120

$\Sigma = 32$, actual climatic type $\Sigma = 120$

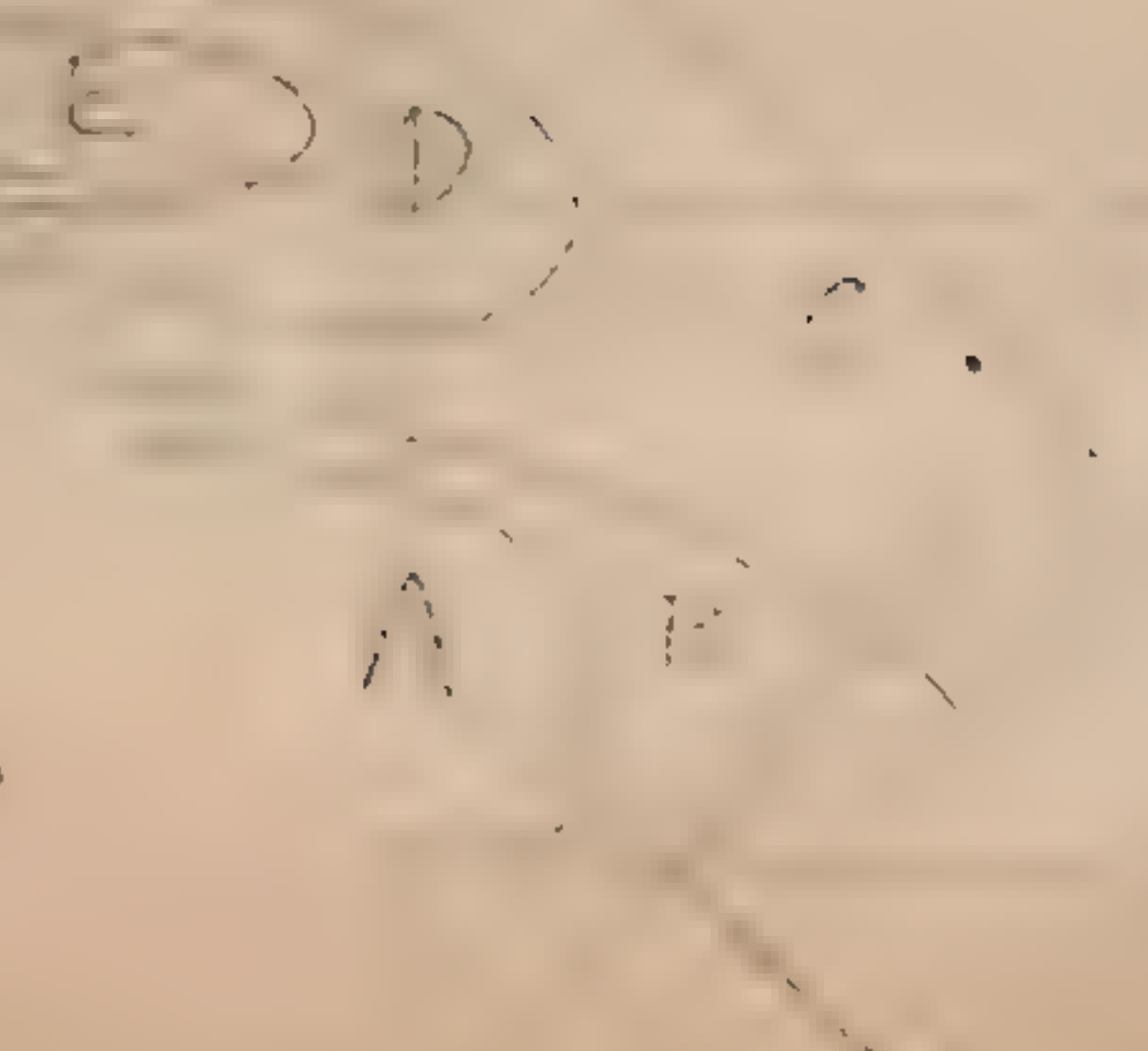
The first of these is the principle of least action, which states that the path taken by a particle is the one for which the action is a minimum. The action is defined as the integral of the Lagrangian over time.



The second of these is the principle of least time, which states that the path taken by a ray of light is the one for which the time taken is a minimum.



The third of these is the principle of least energy, which states that the path taken by a particle is the one for which the energy is a minimum.



Handwritten title or header in Urdu script.

Handwritten text in Urdu script, consisting of several lines.

Handwritten text in Urdu script, possibly a sub-header or separator.

Handwritten text in Urdu script, continuing the main body of the document.

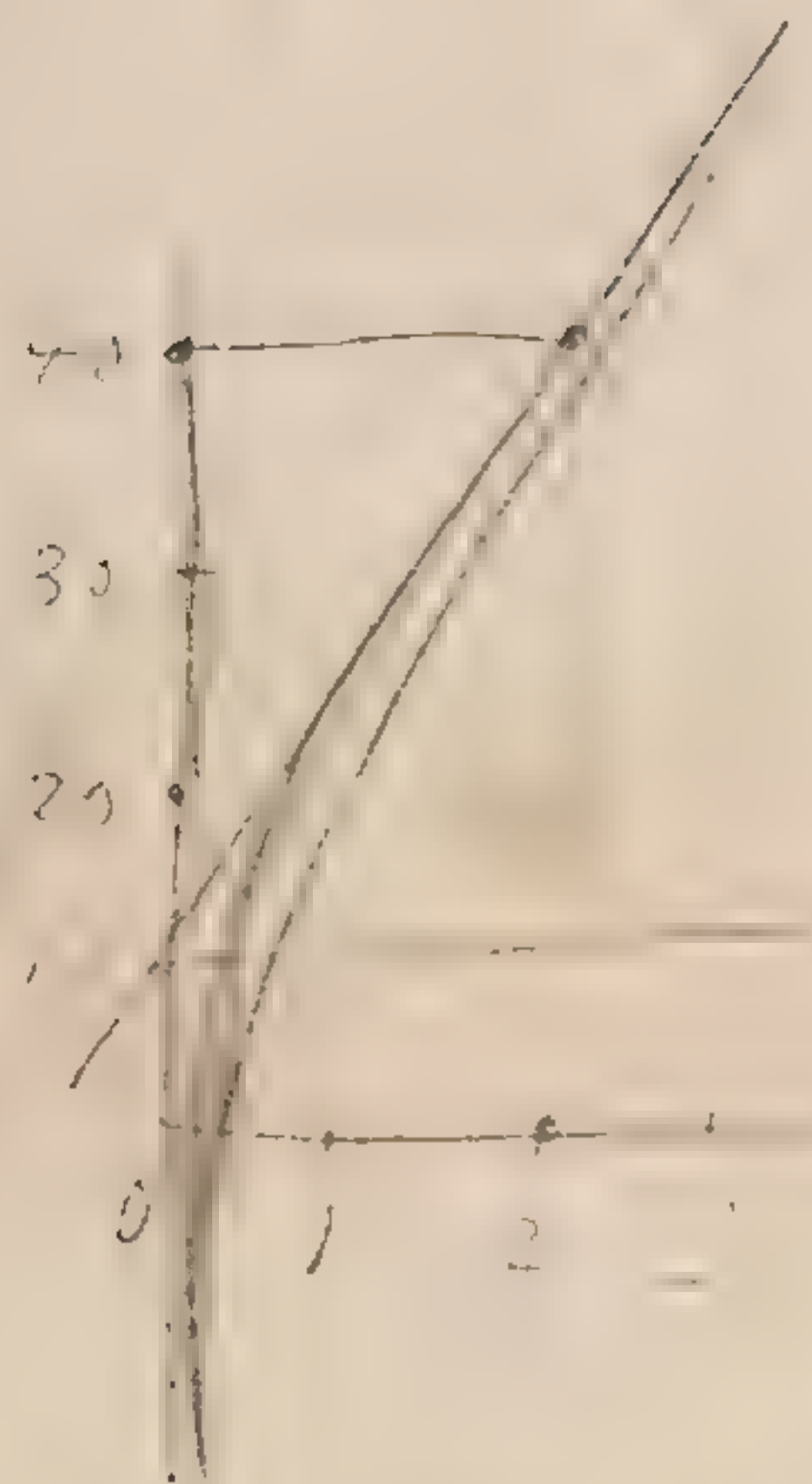
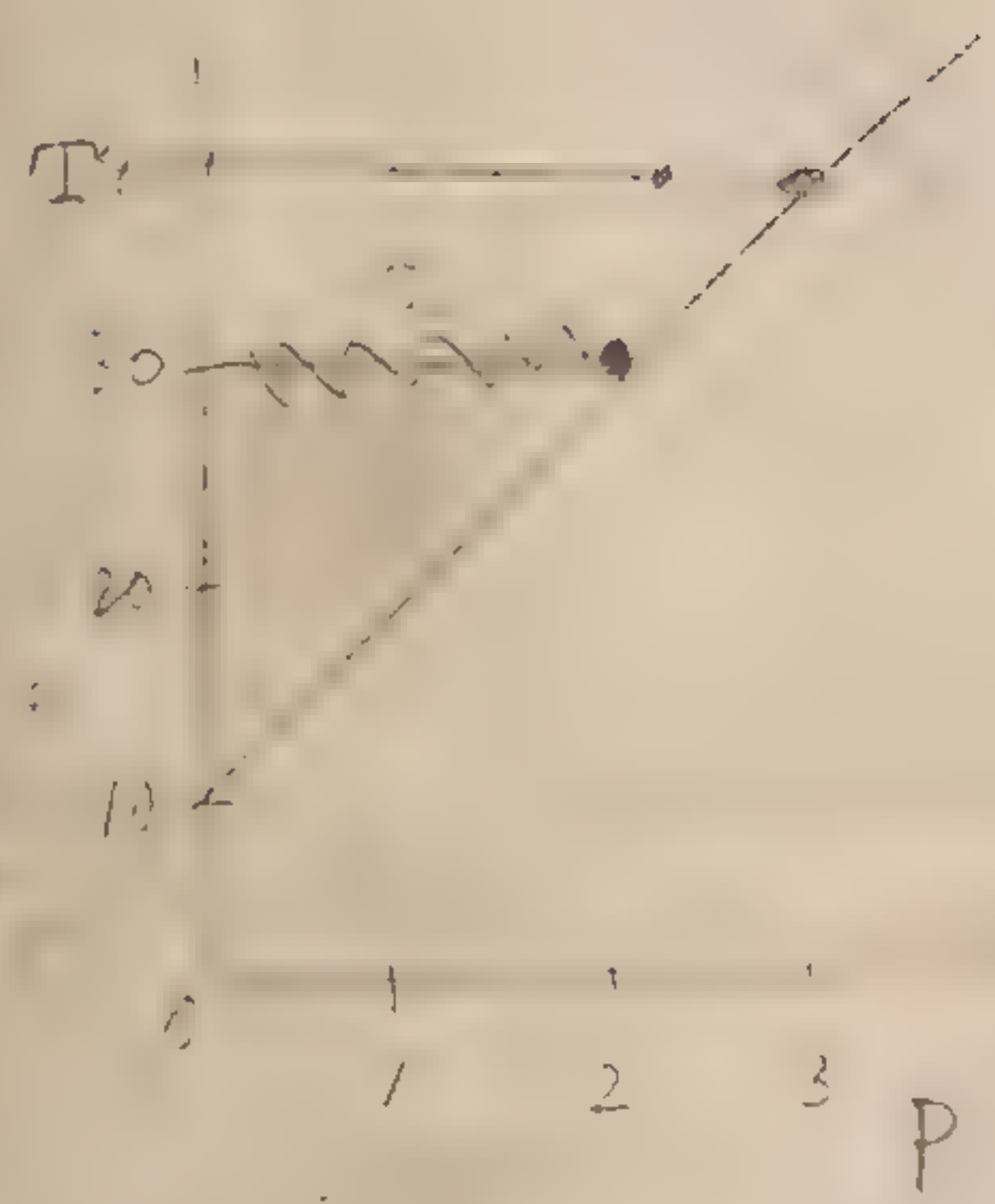
Handwritten text in Urdu script, possibly a signature or a specific note.

Handwritten text in Urdu script, continuing the main body of the document.

Handwritten text in Urdu script, possibly a concluding statement or a signature.

Handwritten text in Urdu script, possibly a date or a final note.

$$\frac{P}{T} = \frac{P}{T} = \dots$$



$$\frac{P}{T} = \frac{2}{30}$$

$$\frac{P}{T} = \frac{2}{30} = \frac{1}{15} = 0.0667$$

$$\frac{P}{T=10}$$

$$T=10$$

Polar climate
(Temperature constantly under 0°)

Rain and Snowfalls
9-12 months but
no persistent
snow-covering

Snowfalls
6-9 months
with persistent
snow-covering

Sparse Snowfalls
for 3-6 months
with persistent
ice-covering

Sparse Snowfalls
for 0-3 months
without persistent
snow-covering

Constant Moisture
periodic

mean Annual
Temperature
 $0-10^{\circ}\text{C}$
Absol. Min^m.
below 0°C

1

5

9

13

Absol Minimum
Temperature
for 9-12 months
below 0°C

Mean Annual
Temperature
 $0-10^{\circ}\text{C}$
Absol. Min^m.
up to 0°C

2

6

10

14

Absol. Minimum
Temperature
for 6-9 months
below 0°C

Mean Annual
Temperature
 $10-20^{\circ}\text{C}$

3

7

11

15

Absol. Min^m.
Temperature
for 3-6 months
below 0°C

Mean Annual
Temperature
over 20°C

4

8

12

16

Absol. Min^m.
Temperature
for 0-3 months
below 0°C

Humid Zone
Rain Period
9-12 months

Semi-humid Zone
Rain Period
6-9 months

Semi-arid Zone
Rain Period
3-6 months

Arid Zone
Rain Period
0-3 months
or Aperiodic Rain

Under 0°C Absol Min^m.

Equatorial climate
(Temperature constantly over 20°C)

- 1 Cold insular climate
- 2 Insular climate
- 3 Warm insular climate
- 4 Tropical rain climate
- 5 Nival climate
- 6 Temperate cold climate
- 7 Subtropical climate
- 8 Tropical continental climate

- 9 Glacial climate
- 10 Cold continental climate
- 11 Warm continental climate
- 12 Tropical arid climate
- 13 Cold climate
- 14 Continental climate
- 15 Cold desert climate
- 16 Hot desert climate

(with constant moisture)

Insular Climate

(with constant drought)
Continental Climate

territory, p. 95 & 98.

p. 96. Could territory be a behavior pattern
aroused up with abundance of a particular species?
In the tropics it is well known that there is a
wealth of species but as a rule few representatives
of each. The Malagasy song of the bird life on
Madagascar in East Africa, 'The land song and
pigeon song' recorded in the Temperate zone with
territory holding were little in evidence however,
and we have yet to gain a clear idea of
what part this element of bird-behavior plays
among tropical birds.

territory, p. 94 & 95 - 96 & 97 & 98.

p. 97. It is the most important item, why
does the male drive out rivals of his own species
only, tolerating competitors whose young will be
fed the same sort of insects as his own? Economic
ornithologists tell us that birds in general feed
rather indiscriminately, taking those insects that
are most easily available. It is only some individuals
of the House Wren (*Troglodytes aedon*) that try to
put all competitors out of the running.

It may be that the food aspect has been over-
emphasized and that the matter of sex is of more
importance than we realize. The male drives off other
males of his own species to keep them from interfering
with his family life. The male Song Sparrow 'courts'
in his peculiar rough way neighboring females where
they chance to be unprotected. Howard mentions
'stolen matings' with the birds he has studied (p. 29:
42).

Territory: 1898-1900

p. 97. The territorial instinct has been fully worked out in many few birds' says McCabe. Besides the old birds on the old world landbirds - the House-Bunting (*Emberiza caesia*), and Yellow-Bunting (*Emberiza citrinella*). Only some landbirds have been intensively, if not exclusively, investigated. The English Golden Plover, the Eastern Song Sparrow, certain American species and the Prairie Wren are birds.

Summary

p. 98. Territory implies in the male bird isolation, advertisement, fixation, and endurance. Where these four aspects are not present, the bird does not truly hold territory.

... It may be that the food aspect of territory has been over-emphasized, and that sex jealousy in many cases plays a definite part.

Lorenz, K. Z., 1937. The companion in the bird's world.

The Auk, 54: 245-253.

F 72 = 12 3, 4, 5

p. 262. It is a fact most surprising to the human as well as to the zoologist that most birds do not recognize their own species 'instinctively', but that by far the greater part of their reactions, whose normal object is represented by a fellow-member of the species, must be conditioned to this object during the individual life of every bird.

Imprinting

It has been found that a great many animals, when deprived of the normal object of some instinctive reaction, will respond to a substitute object, or, to be more precise, will react to other than the normal sort of stimuli. In all these cases the animal will prefer the normal object whenever it is available, but the bird raised in isolation refuses to react to its kind. In recent years experimentally investigated, the biologically right object, that is, the fellow-member of its species, has not even accepted as a substitute for the abnormal object, required under the conditions of experiment, when the latter was withdrawn and the bird left severely alone with other individuals of its species. However, failed to react hand-raised Great Horned Owls, Ravens and other birds, for no other reason than that these same individuals responded socially to their keepers instead of to each other. In a very few cases known,

the bird whose sexual reactions were then directed toward man, finally accepted a fellow-member of the species which, however, was always regarded as a rather poor substitute for the beloved human and was instantly abandoned whenever the latter appeared.

7.5.17 Greylog Goshawk - male & female, Duck + + +
 2.1.18 2.5.18 (5.26.18) - 1st parent-child relation
 2.7.18 2.7.18 1.2.18, 7.12.18 1.2.18, Duck, Goose + + + + +,
 1.2.18 1.2.18, 1.2.18 1.2.18 species = 2.7.18 socially = 7.12.18
 = + + : + 4.9.18 = 2. young Marovics - 1.2.18 social
 reaction 7.12.18 1.2.18, 1.2.18 1.2.18, 1.2.18 1.2.18, 1.2.18 1.2.18
 1.2.18 = Greylog Goshawk 1.2.18 1.2.18 1.2.18 1.2.18
 1.2.18 1.2.18 1.2.18.

imprinting / 450

i) The process is confined to a very definite period of individual life, a period which in many cases is of extremely short duration (p. 123)

ii) The process, once accomplished, is totally irreversible, so that from then on, the reaction behaves exactly like an 'unconditioned' or purely instinctive response. (p. 124)

iii) Associative learning is to be distinguished from imprinting. In the latter, the reaction is not learned, but is a result of a process which is not learned. (p. 125)

iv) The process of acquiring the object of a reaction is in many cases completed long before the reaction itself has become established, as seen in the observations on the Muscovy ducks cited above. This offers some difficulties to the assumption that the acquiring process in

imprinting is essentially the same as in other cases of 'conditioning,' especially in associative learning. To explain the process in question as one of associative learning, one would have to assume that the reaction is, in some rudimentary stage, already present at the time when its object is irreversibly determined, an assumption which psychoanalysts would doubtless welcome, but about which I have doubts. (p. 126)

v) In the process of imprinting, the individual from whom the stimuli which influence the conditioning of the reaction are issuing, does not exclusively function as an object of the reaction. In many cases it is the object of the young bird's loving reactions, or the following reactions, in short the object of the reactions directed to the parent-companion, that irreversibly determines the conditions which, more than a year later, will release the copulating reactions in the mature bird. This is what we might call a super-individual conditioning to the species and certainly it is the chief biological task of imprinting to achieve

is sort of consciousness of forces in the young
bird. If we may use the term 'consciousness'
in a broad sense.

Maxwell-Lorentz, static-conception system

ヲ ト × ㊦ オ ヲ

1. instinctive reaction, reflex action

1-17 700 22 22. The reflex action of the
100, 100 22 22 = 100, 100 22 22
The reflex action of the

行館 $2 + 4 + 6 + 8 + 10 + 12 + 14 + 16 + 18 + 20$

2. 心にきつかりハツノ行動ノ目的ヲ解ニシテ

$$A_{11} = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$
[illegible]

is the object, 04121 - 東京 二ツ一三

3073 - "release" - 7.104-7.105

3. 1/ released 16 1/2 P.M. 1952

到 \$X_1 + \dots + X_n\$, 而 \$Y\$ 是 \$\dots\$ 的 \$n\$ 个 \$Y_i\$ 之和。
= 对 \$Y\$ 的分布，\$Y\$ 是 \$\dots\$ 的行和。instruction

$$= \text{root } z_n, \quad \text{i.e. } \frac{1}{n} \log(1 - |z_n|) = \pm \frac{\pi}{2}, \quad |z_n| = 1$$

... innate perceptory
patterns, ... 'angelic' ...

... 1971 ...

... The relation of the particular form
of the food to the way that gets it, or of any
innate perceptory pattern to the set of stimuli
to which it responds, is even a compromise
between greatest possible simplicity and
greatest possible general improbability. The
improbability of the innate perceptory patterns
is to guard the instinctive reaction from
being released by chance through other
than the biological 'right' influences.
... instinctive reaction ...

Instinctive Imitation

p. 256. ... It is a well-known fact that this
kind of initiating movement in social animals
is perfectly 'understood' by the fellow-members
of the species. A few words must be said
about this so-called understanding. On seeing
one animal beginning to perform some action
and thereby initiating a fellow-member of the
flock or herd to do likewise, the human
observer is prone to assume an 'instinct of
imitation' on the part of the second individual
to explain its behavior. The process, however,
on which this seeming imitation is really based,
very closely resembles that very direct
transmitting of moods from one individual to
another which we can so often observe in
ourselves. The 'contagious' reactions of coughing,
yawning and the like, at first sight seem
very different from the complicated serial actions
transmitted in a similar way in animals, yet,
being also inherited possessions of the species,

they are directly comparable to them. In social animals the transmitting of specific excitations may clearly become of very considerable survival value. All these functions of coordinating the behavior of the individual members of society, which, in the human species, represent some of the chief tasks of speech, are performed either by releasing ceremonies or by the transmitting of specific excitations which we have just considered.

Mass reaction

p. 256. There is no sharp boundary line between the simple transmitting of excitation, as we may say, 'by contagion' and releasing actions in the strict sense of the word. Responding to a certain reaction of a fellow-member of the species by reacting in the very same way is evidently wholly innate. We have, therefore, to assume the existence of innate perceptory patterns corresponding to certain sets of stimuli emanating from the individual first showing the reaction, an assumption which we have to make in all cases where an unconditioned reaction is released in so specific a manner. By the evolution of this kind of innate perceptory pattern, almost any instinctive reaction in a social species may be appointed to the secondary and purely social task of releasing like reactions in the fellow-member of the flock or herd.

'symbolic' reaction

p. 257. The correlation of release and corresponding innate locomotory pattern once being established, a new development of the intention involving initiating movement may set in. By special adaptation to their releasing function, they may be gradually alienated from the reaction, the beginning of which they originally represented. This, to the best of our knowledge, has been the origin of all these 'abstracted' actions which, with some exceptions, we are accustomed to describe as 'symbolic'.

'interest' in the flock

p. 257. The importance of taking to wing synchronously is evident in all species flying in flocks, so that it is no wonder that these initiating movements of taking to air have attained a special function as releasers in social birds. They transmit the specific location from one bird to the other until, after an interval of mutual stimulation, the threshold of the whole reaction is so far lowered that the final stimulation issuing from the first bird actually taking wing, is sure to cause all members of the flock to follow. In the Greylag Goose this kind of mutual stimulation is so important that flocks containing many members actually take the air much more often than others which consist of only a few birds. The individual bird sending out specific stimulation receives it back 'with interest' from the fellow-members of the flock and it is this 'interest' that increases with their number.

An isolated group of birds is little of use
time on the wing that it will become noticeably
fatter and healthier of muscle than geese living
under the same conditions but in the society
of their kind. The same phenomenon causes
large herds of horses or cattle to be
much more prone to stampede than are
small numbers of the same animals.

人101. 5. 18. 1. 5. 18. 1. 4. 5. 1.

p. 259. The second possibility lies in the
differentiation of a specific innate perceptory
pattern for every single one of the actions on
the part of the agent, and also on the part of
the patient in receipt of the action, in the
differentiation of a releaser separately eliciting
each of them. The limiting factor which ensures
the consistent cooperation of the several instinctive
actions thus does not lie in the agent at all,
but in the object of the reactions, which, by
representing the issuing station common to all
the different sets of releasing stimulus, reduces
every single reaction to its evolutionally
predetermined end. The agent as a subject
need not, even in the remotest way, be concerned
either of the survival value of its actions, or of
the identity of their neutral object. The object
in the agent's world need not be represented
as that kind of unit in space and time
which we are accustomed to call a 'thing'.

if only it is sending out the specific set of stimuli and releasing every one of the actions which must be executed toward it. Complicated and far-fetched though this device of method of direct treatment may seem to the human mind, it is certain that for animals on the mental level of birds this has been easier to attain through evolution than have the mental powers necessary to afford an direct treatment of equal complication and coincidence by insight and purpose.

Huxford, 'Gumpen'

p. 250. In all cases where such a similarity of the single instructive acts can be shown we have reason to think that the fellow-member of the species is perceived as a different thing in every experimentally separate position. The most peculiar rôle which the fellow-member of the species thus plays in the animal's world being perceived as one thing when abstracting the object of one reaction and as a different one when being that of another, has been termed that of a "Gumpen" by Professor J. von Huxford. The German word, Gumpen, means a fellow who is our companion so far as concerns but one particular kind of occupation, such as hunting or distributing - (Jagd-kumpen, Sauf-kumpen).

Einleitung

163. Für den Vornachschauen ist nicht
sehr unbekannt, ja ungewiss, daß die
Vogel Vorfahren nicht an der Vornachschauen und
rein 'instinktiv' unter allen Umständen die solche
erkennt und entsprechend auf sie reagiert. Dies
tun aber nur sehr wenige Vögel. In Gegensatz zu
allen in dieser Hinsicht bekannt gewordenen Vögeln
erkennen isoliert junge Vögel die Vornachschauen
alten Vornachschauen, mit denen man sie zusammenbringt,
nicht als Vornachschauen, die sie haben die Vornachschauen
auf die Vornachschauen an der Vornachschauen
durch Vornachschauen nicht an der Vornachschauen. Vornachschauen
bringen Vornachschauen der Vornachschauen Vornachschauen die auf
den Vornachschauen Vornachschauen Vornachschauen den
Vornachschauen gegenüber, wenn sie, so Vornachschauen
isoliert, in Vornachschauen Vornachschauen
sind.

Imprinting & Spemann

22. 7. 1910

p. 169. Diese beiden Tatsachen, erstens die Bestimmung des späteren Verhaltens zu einem bestimmten Zeitpunkt der Ontogenese durch eine Beeinflussung von außen, und zwar von dem Mitgenossen her, zweitens die Irreversibilität dieses Bestimmungsorganges, bringen die Entwicklungsorgänge des Systems der triebmäßigen Verhaltensweisen in eine merkwürdige Analogie zu Vorgängen, die aus der körperlichen Entwicklungslehre bekannt sind.

1. 22. 7. 1910. 2. 1. 1911. 3. 1. 1911. 4. 1. 1911. 5. 1. 1911. 6. 1. 1911. 7. 1. 1911. 8. 1. 1911. 9. 1. 1911. 10. 1. 1911. 11. 1. 1911. 12. 1. 1911. 13. 1. 1911. 14. 1. 1911. 15. 1. 1911. 16. 1. 1911. 17. 1. 1911. 18. 1. 1911. 19. 1. 1911. 20. 1. 1911. 21. 1. 1911. 22. 1. 1911. 23. 1. 1911. 24. 1. 1911. 25. 1. 1911. 26. 1. 1911. 27. 1. 1911. 28. 1. 1911. 29. 1. 1911. 30. 1. 1911. 31. 1. 1911. 32. 1. 1911. 33. 1. 1911. 34. 1. 1911. 35. 1. 1911. 36. 1. 1911. 37. 1. 1911. 38. 1. 1911. 39. 1. 1911. 40. 1. 1911. 41. 1. 1911. 42. 1. 1911. 43. 1. 1911. 44. 1. 1911. 45. 1. 1911. 46. 1. 1911. 47. 1. 1911. 48. 1. 1911. 49. 1. 1911. 50. 1. 1911. 51. 1. 1911. 52. 1. 1911. 53. 1. 1911. 54. 1. 1911. 55. 1. 1911. 56. 1. 1911. 57. 1. 1911. 58. 1. 1911. 59. 1. 1911. 60. 1. 1911. 61. 1. 1911. 62. 1. 1911. 63. 1. 1911. 64. 1. 1911. 65. 1. 1911. 66. 1. 1911. 67. 1. 1911. 68. 1. 1911. 69. 1. 1911. 70. 1. 1911. 71. 1. 1911. 72. 1. 1911. 73. 1. 1911. 74. 1. 1911. 75. 1. 1911. 76. 1. 1911. 77. 1. 1911. 78. 1. 1911. 79. 1. 1911. 80. 1. 1911. 81. 1. 1911. 82. 1. 1911. 83. 1. 1911. 84. 1. 1911. 85. 1. 1911. 86. 1. 1911. 87. 1. 1911. 88. 1. 1911. 89. 1. 1911. 90. 1. 1911. 91. 1. 1911. 92. 1. 1911. 93. 1. 1911. 94. 1. 1911. 95. 1. 1911. 96. 1. 1911. 97. 1. 1911. 98. 1. 1911. 99. 1. 1911. 100. 1. 1911.

21. 10. 1910. 22. 10. 1910. 23. 10. 1910. 24. 10. 1910. 25. 10. 1910. 26. 10. 1910. 27. 10. 1910. 28. 10. 1910. 29. 10. 1910. 30. 10. 1910. 31. 10. 1910. 32. 10. 1910. 33. 10. 1910. 34. 10. 1910. 35. 10. 1910. 36. 10. 1910. 37. 10. 1910. 38. 10. 1910. 39. 10. 1910. 40. 10. 1910. 41. 10. 1910. 42. 10. 1910. 43. 10. 1910. 44. 10. 1910. 45. 10. 1910. 46. 10. 1910. 47. 10. 1910. 48. 10. 1910. 49. 10. 1910. 50. 10. 1910. 51. 10. 1910. 52. 10. 1910. 53. 10. 1910. 54. 10. 1910. 55. 10. 1910. 56. 10. 1910. 57. 10. 1910. 58. 10. 1910. 59. 10. 1910. 60. 10. 1910. 61. 10. 1910. 62. 10. 1910. 63. 10. 1910. 64. 10. 1910. 65. 10. 1910. 66. 10. 1910. 67. 10. 1910. 68. 10. 1910. 69. 10. 1910. 70. 10. 1910. 71. 10. 1910. 72. 10. 1910. 73. 10. 1910. 74. 10. 1910. 75. 10. 1910. 76. 10. 1910. 77. 10. 1910. 78. 10. 1910. 79. 10. 1910. 80. 10. 1910. 81. 10. 1910. 82. 10. 1910. 83. 10. 1910. 84. 10. 1910. 85. 10. 1910. 86. 10. 1910. 87. 10. 1910. 88. 10. 1910. 89. 10. 1910. 90. 10. 1910. 91. 10. 1910. 92. 10. 1910. 93. 10. 1910. 94. 10. 1910. 95. 10. 1910. 96. 10. 1910. 97. 10. 1910. 98. 10. 1910. 99. 10. 1910. 100. 10. 1910.

Von Stockente, Fledfassen und ... ich aus eigener Erfahrung versichern. Sie die Jungvögel, die nur wenige Stunden hindurch ihrer Mutter nachgesehen sind, ihren Nachkommen nicht mehr auf den Menschen übertragen können.

Imprinting 10/15. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

Eltern & Geschwister - 1. imprint mit Artgenossen
/ Schema - überindividuelle + 1. + 2. + 3. + 4. + 5. + 6. + 7. + 8. + 9. + 10. + 11. + 12. + 13. + 14. + 15. + 16. + 17. + 18. + 19. + 20. + 21. + 22. + 23. + 24. + 25. + 26. + 27. + 28. + 29. + 30. + 31. + 32. + 33. + 34. + 35. + 36. + 37. + 38. + 39. + 40. + 41. + 42. + 43. + 44. + 45. + 46. + 47. + 48. + 49. + 50. + 51. + 52. + 53. + 54. + 55. + 56. + 57. + 58. + 59. + 60. + 61. + 62. + 63. + 64. + 65. + 66. + 67. + 68. + 69. + 70. + 71. + 72. + 73. + 74. + 75. + 76. + 77. + 78. + 79. + 80. + 81. + 82. + 83. + 84. + 85. + 86. + 87. + 88. + 89. + 90. + 91. + 92. + 93. + 94. + 95. + 96. + 97. + 98. + 99. + 100. + 101. + 102. + 103. + 104. + 105. + 106. + 107. + 108. + 109. + 110. + 111. + 112. + 113. + 114. + 115. + 116. + 117. + 118. + 119. + 120. + 121. + 122. + 123. + 124. + 125. + 126. + 127. + 128. + 129. + 130. + 131. + 132. + 133. + 134. + 135. + 136. + 137. + 138. + 139. + 140. + 141. + 142. + 143. + 144. + 145. + 146. + 147. + 148. + 149. + 150. + 151. + 152. + 153. + 154. + 155. + 156. + 157. + 158. + 159. + 160. + 161. + 162. + 163. + 164. + 165. + 166. + 167. + 168. + 169. + 170. + 171. + 172. + 173. + 174. + 175. + 176. + 177. + 178. + 179. + 180. + 181. + 182. + 183. + 184. + 185. + 186. + 187. + 188. + 189. + 190. + 191. + 192. + 193. + 194. + 195. + 196. + 197. + 198. + 199. + 200. + 201. + 202. + 203. + 204. + 205. + 206. + 207. + 208. + 209. + 210. + 211. + 212. + 213. + 214. + 215. + 216. + 217. + 218. + 219. + 220. + 221. + 222. + 223. + 224. + 225. + 226. + 227. + 228. + 229. + 230. + 231. + 232. + 233. + 234. + 235. + 236. + 237. + 238. + 239. + 240. + 241. + 242. + 243. + 244. + 245. + 246. + 247. + 248. + 249. + 250. + 251. + 252. + 253. + 254. + 255. + 256. + 257. + 258. + 259. + 260. + 261. + 262. + 263. + 264. + 265. + 266. + 267. + 268. + 269. + 270. + 271. + 272. + 273. + 274. + 275. + 276. + 277. + 278. + 279. + 280. + 281. + 282. + 283. + 284. + 285. + 286. + 287. + 288. + 289. + 290. + 291. + 292. + 293. + 294. + 295. + 296. + 297. + 298. + 299. + 300. + 301. + 302. + 303. + 304. + 305. + 306. + 307. + 308. + 309. + 310. + 311. + 312. + 313. + 314. + 315. + 316. + 317. + 318. + 319. + 320. + 321. + 322. + 323. + 324. + 325. + 326. + 327. + 328. + 329. + 330. + 331. + 332. + 333. + 334. + 335. + 336. + 337. + 338. + 339. + 340. + 341. + 342. + 343. + 344. + 345. + 346. + 347. + 348. + 349. + 350. + 351. + 352. + 353. + 354. + 355. + 356. + 357. + 358. + 359. + 360. + 361. + 362. + 363. + 364. + 365. + 366. + 367. + 368. + 369. + 370. + 371. + 372. + 373. + 374. + 375. + 376. + 377. + 378. + 379. + 380. + 381. + 382. + 383. + 384. + 385. + 386. + 387. + 388. + 389. + 390. + 391. + 392. + 393. + 394. + 395. + 396. + 397. + 398. + 399. + 400. + 401. + 402. + 403. + 404. + 405. + 406. + 407. + 408. + 409. + 410. + 411. + 412. + 413. + 414. + 415. + 416. + 417. + 418. + 419. + 420. + 421. + 422. + 423. + 424. + 425. + 426. + 427. + 428. + 429. + 430. + 431. + 432. + 433. + 434. + 435. + 436. + 437. + 438. + 439. + 440. + 441. + 442. + 443. + 444. + 445. + 446. + 447. + 448. + 449. + 450. + 451. + 452. + 453. + 454. + 455. + 456. + 457. + 458. + 459. + 460. + 461. + 462. + 463. + 464. + 465. + 466. + 467. + 468. + 469. + 470. + 471. + 472. + 473. + 474. + 475. + 476. + 477. + 478. + 479. + 480. + 481. + 482. + 483. + 484. + 485. + 486. + 487. + 488. + 489. + 490. + 491. + 492. + 493. + 494. + 495. + 496. + 497. + 498. + 499. + 500. + 501. + 502. + 503. + 504. + 505. + 506. + 507. + 508. + 509. + 510. + 511. + 512. + 513. + 514. + 515. + 516. + 517. + 518. + 519. + 520. + 521. + 522. + 523. + 524. + 525. + 526. + 527. + 528. + 529. + 530. + 531. + 532. + 533. + 534. + 535. + 536. + 537. + 538. + 539. + 540. + 541. + 542. + 543. + 544. + 545. + 546. + 547. + 548. + 549. + 550. + 551. + 552. + 553. + 554. + 555. + 556. + 557. + 558. + 559. + 560. + 561. + 562. + 563. + 564. + 565. + 566. + 567. + 568. + 569. + 570. + 571. + 572. + 573. + 574. + 575. + 576. + 577. + 578. + 579. + 580. + 581. + 582. + 583. + 584. + 585. + 586. + 587. + 588. + 589. + 590. + 591. + 592. + 593. + 594. + 595. + 596. + 597. + 598. + 599. + 600. + 601. + 602. + 603. + 604. + 605. + 606. + 607. + 608. + 609. + 610. + 611. + 612. + 613. + 614. + 615. + 616. + 617. + 618. + 619. + 620. + 621. + 622. + 623. + 624. + 625. + 626. + 627. + 628. + 629. + 630. + 631. + 632. + 633. + 634. + 635. + 636. + 637. + 638. + 639. + 640. + 641. + 642. + 643. + 644. + 645. + 646. + 647. + 648. + 649. + 650. + 651. + 652. + 653. + 654. + 655. + 656. + 657. + 658. + 659. + 660. + 661. + 662. + 663. + 664. + 665. + 666. + 667. + 668. + 669. + 670. + 671. + 672. + 673. + 674. + 675. + 676. + 677. + 678. + 679. + 680. + 681. + 682. + 683. + 684. + 685. + 686. + 687. + 688. + 689. + 690. + 691. + 692. + 693. + 694. + 695. + 696. + 697. + 698. + 699. + 700. + 701. + 702. + 703. + 704. + 705. + 706. + 707. + 708. + 709. + 710. + 711. + 712. + 713. + 714. + 715. + 716. + 717. + 718. + 719. + 720. + 721. + 722. + 723. + 724. + 725. + 726. + 727. + 728. + 729. + 730. + 731. + 732. + 733. + 734. + 735. + 736. + 737. + 738. + 739. + 740. + 741. + 742. + 743. + 744. + 745. + 746. + 747. + 748. + 749. + 750. + 751. + 752. + 753. + 754. + 755. + 756. + 757. + 758. + 759. + 760. + 761. + 762. + 763. + 764. + 765. + 766. + 767. + 768. + 769. + 770. + 771. + 772. + 773. + 774. + 775. + 776. + 777. + 778. + 779. + 780. + 781. + 782. + 783. + 784. + 785. + 786. + 787. + 788. + 789. + 790. + 791. + 792. + 793. + 794. + 795. + 796. + 797. + 798. + 799. + 800. + 801. + 802. + 803. + 804. + 805. + 806. + 807. + 808. + 809. + 810. + 811. + 812. + 813. + 814. + 815. + 816. + 817. + 818. + 819. + 820. + 821. + 822. + 823. + 824. + 825. + 826. + 827. + 828. + 829. + 830. + 831. + 832. + 833. + 834. + 835. + 836. + 837. + 838. + 839. + 840. + 841. + 842. + 843. + 844. + 845. + 846. + 847. + 848. + 849. + 850. + 851. + 852. + 853. + 854. + 855. + 856. + 857. + 858. + 859. + 860. + 861. + 862. + 863. + 864. + 865. + 866. + 867. + 868. + 869. + 870. + 871. + 872. + 873. + 874. + 875. + 876. + 877. + 878. + 879. + 880. + 881. + 882. + 883. + 884. + 885. + 886. + 887. + 888. + 889. + 890. + 891. + 892. + 893. + 894. + 895. + 896. + 897. + 898. + 899. + 900. + 901. + 902. + 903. + 904. + 905. + 906. + 907. + 908. + 909. + 910. + 911. + 912. + 913. + 914. + 915. + 916. + 917. + 918. + 919. + 920. + 921. + 922. + 923. + 924. + 925. + 926. + 927. + 928. + 929. + 930. + 931. + 932. + 933. + 934. + 935. + 936. + 937. + 938. + 939. + 940. + 941. + 942. + 943. + 944. + 945. + 946. + 947. + 948. + 949. + 950. + 951. + 952. + 953. + 954. + 955. + 956. + 957. + 958. + 959. + 960. + 961. + 962. + 963. + 964. + 965. + 966. + 967. + 968. + 969. + 970. + 971. + 972. + 973. + 974. + 975. + 976. + 977. + 978. + 979. + 980. + 981. + 982. + 983. + 984. + 985. + 986. + 987. + 988. + 989. + 990. + 991. + 992. + 993. + 994. + 995. + 996. + 997. + 998. + 999. + 1000.

p. 172. Daß dies bei dem normalen artgemäßen
Prägungsvorgang gelingt, ist schon wunderbar
genug; höchst merkwürdig ist es aber, daß
der vom Menschen aufgezogene und 'auf Mensch'
umgestellte Vogel seine artgenossenberührenden
Triebhandlungen nicht gegen einen Menschen,
sondern gegen die Art *Homo sapiens* richtet.
So richtet eine Dohle, der ein Mensch den
Elternkompan ersetzt und die vollständig
'Menschenvogel' geworden ist, ihre erwachenden
geschlechtlichen Triebe nicht etwa gegen den
früheren Elternkompan, sondern vielmehr mit
der vollkommenen Unberechenbarkeit des Sich-
Verliebense ganz plötzlich gegen irgend einen
verhältnismäßig fremden Menschen, irgend
eines Geschlechts, ganz sicher aber gegen
einen Menschen. Es scheint sogar, als ob

der frühere Elternkompan als 'Vater' nicht
in Erwägung käme. Woran aber bestimmt es
ein Vogel unsere Artgenossen als 'Menschen'.
Hier harren noch eine ganze Reihe hoch-
interessanter Fragen der Beantwortung!

ich auf das Pfeifen hin zu den Entlein zurück und wiederholte das langsame Weggehen unter neuerlichem Quaken, und jetzt setzte sich der ganze Zug prompt in Bewegung und kam dicht aufgeschlossen hinter mir her. Von da ab folgten mir die Enten fast genau so eifrig und sicher nach, wie sie es bei ihrer richtigen Mutter getan hätten. Dafs aber für die junge Stockente der Mutterton das wesentliche Merkmal des Mutterkumpans ist und dafs sie sich das Aussehen des Kumpans individuell einprägt, wird durch den Fortgang des Versuches wahrscheinlich gemacht. Zunächst durfte ich nämlich nicht zu quaken aufhören, sondern begannen die Kinder nach einiger Zeit mit dem Pfeifen des Verlassenseins. Erst als sie älter wurden, war ich auch dann der Mutterkumpen, wenn ich schwieg.

Nice, Margaret Morse

1941

'The Role of Territory in Bird Life'

Amer. Midland Naturalist,
26:441—487.

P. 441, 書キハシメ,

The theory of territory in bird life is briefly this: that pairs are spaced through the pugnacity of males towards others of their own species and sex; that song and display of plumage and other signals are a warning to other males and an invitation to a female; that males fight primarily for territory and not over mates; that the owner of a territory is nearly invincible in his territory; and finally that birds which fail to obtain territory form a reserve supply from which replacements come in case of death of owners of territories.

bird,

$\frac{1}{100} \frac{1}{2} = \text{territory} = 10 \div 16 \frac{1}{2} = 7.54$, complete
bibliography 77527.

Brückner, G. H.: 1933.

Untersuchungen zur Tiersoziologie,
insbesondere zur Auflösung der Familie,
Zeitsch. für Psychologie, 128: 1-110.

p. 20 Hat aber ein fremdes Küken die herrschenden
Komplex-merkmale, so geht es reibungslos in
die gestalthaft erlebte Familie ein. Die Konsequenz
dieser Anschauung ist, daß die Glucken ihre
Küken nicht individuell kennen, und das ist
ja wegen der kollektiven Struktur des Gynöpodiums
auch biologisch nicht erforderlich.

p. 27. 危険 = 安全 + 危険 ²⁷ 助か = 助か + 助か ^(2-33/107=)
見れば, 安全 + 危険 見れば 他 / 助か / 方 / 行つていらず, 1.
(die Gesamtheit alles, das Individuum nichts
sei!

安全 + 危険 見れば 他 / 助か / 方 / 行つていらず.
安全 + 危険 見れば 他 / 助か / 方 / 行つていらず.

p. 29. 病気 = 安全, 安全 + 危険 見れば 他 / 助か / 方 / 行つていらず.
安全 + 危険 見れば 他 / 助か / 方 / 行つていらず.

p. 81 母は死にたが、コイワシ。 Die armen Waisen
tratteten aber wochenlang hinter der anderen
Familie her, bis auch deren Kinder, selbständig
gemacht waren; darauf schlug die ganze
Gesellschaft sich zu einer Rote zusammen,
nunmehr eine Bache mit 9 Frischlingen.

"
ニワトリ、♀。 雛、1 Küchlein + 1 Ei, in condition /
F. 世は世にカ — Schwäne erkennen sich genau
am Gesicht (Heinroth) und nehmen fremde
Kinder nicht in ihren Verband auf, ---

p. 92 母性愛の所有欲 = 愛欲の表現 Espinas 12 章
1 系 = 3 対。 Besitz- und Eigentumsvorstellungen
beim Muttertier zu unterstellen, ist Ausfluß von
Phantasie. Beim Tier sind bestimmt in dem
Mutter-Kindverhältnis Eigentums- ja auch nur
Besitzvorstellung nicht beteiligt, + 27

von Katz (D. Katz, 1926, Sozialpsychologie
der Vögel. Ergeb. d. Biol. Berlin, S. 464)

7 31 母は死にた

Die bloße Abstammung von derselben Mutter
erklärt natürlich nicht einen derartigen
Zusammenhalt, es muß ein psychologischer
Faktor, die Freude am Zusammensein mit
den anderen, hinzukommen.

文 献 考

W. Fischel, 1929. Beiträge zur Soziologie des
Haushuhnes. Biol. Zentralbl. 47.

F. Alverdes, 1925 Über vergleichende Tiersoziologie,
Z. f. Völkerpsych. u. Soziol. 1.

F. Alverdes, 1925 Tiersoziologie.

F. Hempelmann, 1929. Frühform der Gemeinschaft
in der Tierwelt. Berlin.

P. Deegener, 1918, Die Formen der Vergesellschaftung
im Tierreich. Leipzig.

D. Katz, 1922. Tierpsychologie und Soziologie
des Menschen. Z. Psychol. 88. 1922.

G. Révész, 1930 Sozialpsychologische Beobachtungen
an Affen. Z. Psychol. 118. 1930.